



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,328	07/02/2002	Ilia Greenblat	56162.000326	8286

21967 7590 09/30/2005

HUNTON & WILLIAMS LLP
INTELLECTUAL PROPERTY DEPARTMENT
1900 K STREET, N.W.
SUITE 1200
WASHINGTON, DC 20006-1109

EXAMINER

WINDER, PATRICE L

ART UNIT

PAPER NUMBER

2145

DATE MAILED: 09/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/064,328

Applicant(s)

GREENBLAT, ILIA

Examiner

Patrice Winder

Art Unit

2145

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 16-27 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 September 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11-12-02, 3-31-03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
2. The abstract of the disclosure is objected to because the content of the abstract refers to embodiments not recited in the claims of the present invention. Correction is required. See MPEP § 608.01(b).

Drawings

3. The replacement drawings were received on July 24, 2002. These drawings are accepted.
4. The formal drawing were received on September 24, 2002. These drawings are accepted.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 7 and 23 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The use of the relative terminology "sufficient space" and "address needs" renders the claims indefinite.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-9, 19-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Voloshin, USPN 6,256,324 B1 (hereafter referred to as Voloshin).
9. Regarding claim 1, Voloshin taught a communication system using a ring network architecture (column 6, lines 43-47), comprising:

a plurality of ring members connected in point-to-point fashion along the ring network (column 7, lines 29-35);

a transaction based connectivity for communicating a message among the ring members (column 7, lines 48-52),

wherein the message is a configuration message that causes ring members to assign address space in the ring network (column 7, lines 52-65).

10. Regarding dependent claim 2, Voloshin taught wherein the configuration message is processed by each ring member to cause that ring member to assign address space for that ring member, and wherein the configuration message is then passed to the next ring member (column 8, lines 33-63).

11. Regarding dependent claim 3, Voloshin taught the configuration message includes an address that defines a starting address (column 8, lines 38-44).

12. Regarding dependent claim 4, Voloshin taught the configuration message is originated by a CPU (column 5, lines 38-45).

13. Regarding dependent claim 5, Voloshin taught the CPU is an anchor member (column 5, lines 38-45).

14. Regarding dependent claim 6, Voloshin taught wherein each member processing the configuration message revises the starting address before passing the configuration message to the next ring member (column 8, lines 49-57).

15. Regarding dependent claim 7, Voloshin taught each member processing the configuration message assigns the address space of the member using the starting address and address space sufficient for that member (column 10, lines 46-52).

16. Regarding dependent claim 8, Voloshin taught wherein a CPU on the ring recognizes other ring members using starting addresses assigned to those ring members based on the configuration message (column 6, lines 65 – column 7, line 28).
17. Regarding dependent claim 9, Voloshin taught wherein offsets to the starting addresses of the ring members are used for different commands for the ring members (column 10, lines 36-58).
18. Regarding claim 19, Voloshin taught a method of assigning address space in a ring network architecture system including a plurality of ring members (abstract), comprising:
 - issuing a configuration message (column 7, lines 48-65);
 - processing the configuration message at each ring member to assign address space for that ring member in the ring network; modifying the configuration message based on the assigned address space; and passing the configuration message to the next ring member (column 8, lines 33-63).
19. Regarding dependent claim 20, Voloshin taught wherein the configuration message is issued by a CPU member on the ring network (column 5, lines 38-45).
20. Regarding dependent claim 21, Voloshin taught wherein the CPU member is an anchor (column 5, lines 38-45).
21. Regarding dependent claim 22, Voloshin taught wherein the configuration message includes a starting address (column 8, lines 49-57).

22. Regarding dependent claim 23, Voloshin taught wherein the address space is assigned based on the starting address and the address needs of that ring member (column 10, lines 46-52).

23. Regarding dependent claim 24, Voloshin taught wherein the step of modifying comprises modifying the starting address before the step of passing (column 8, lines 49-57).

Claim Rejections - 35 USC § 103

24. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

25. Claims 10-14, 16-18, 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voloshin in view of Sweazey, USPN 5,485,578 (hereafter referred to as Sweazey), as applied to claim 1, above.

26. Regarding dependent claim 10, Voloshin does not specifically teach the ring network includes a bridge. However, Sweazey taught a ring network includes a bridge (column 3, lines 19-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made that incorporating Sweazey's bridges in Voloshin's ring network would have created a local area network of unidirectional rings. The motivation would have been to increase the amount of information that can be transferred.

Art Unit: 2145

27. Regarding dependent claim 11, Voloshin taught wherein the configuration message is processed by the next node by assigning address space for the next node and then passing the configuration message to the other side of the next node (column 8, lines 49-57). Voloshin does not specifically teach the next node is a bridge. However, Sweazey taught a bridge in a ring network (column 3, lines 19-27).

28. Regarding dependent claims 12 and 25, Sweazey taught wherein the configuration message is processed by the bridge (column 15, lines 43-57) so that a subsequent message is routed according to whether an address associated with the subsequent message corresponds to one side of the bridge or the other side of the bridge (column 7, lines 10-33).

29. Regarding dependent claim 13, Sweazey taught wherein in the subsequent message is passed across the bridge when the address is associated with the one side of the bridge, and wherein the subsequent message is passed through the bridge when the address is associated with the other side of the bridge (column 7, lines 10-33).

30. Regarding dependent claim 14, Voloshin-Sweazey taught wherein the bridge receiving a configuration message from one side of the ring network responds by recording a first address included in the configuration message, passing the configuration message to the ring members on the other side of the ring network, and recording a second address included in the configuration message when the configuration message arrives from the other side of the ring network (Voloshin, column 10, lines 36-58, Sweazey, column 15, lines 43-57).

31. Regarding dependent claim 16, Voloshin does not specifically teach a second configuration message which causes ring members to respond with descriptive data. However, Sweazey taught a second configuration message which causes ring members to respond with descriptive data (column 15, lines 25-42). It would have been obvious to one of ordinary skill in the art at the time the invention was made that incorporating Sweazey's second configuration message in Voloshin's ring network would have allowed dynamic discovery of network topology. The motivation would have been to know the precise physical path to a destination node to minimize transmission latency.
32. Regarding dependent claim 17, Sweazey taught the descriptive data includes address space data for the ring members (column 15, lines 54-57).
33. Regarding dependent claim 18, Sweazey taught wherein a CPU member on the ring network is adapted to infer the topology of the ring network using the descriptive data (column 15, lines 25-36).
34. Regarding dependent claim 26, Voloshin does not specifically teach a first category of message and a second category of message. However, Sweazey taught wherein the ring network is adapted to process a first category of message and a second category of message (column 6, lines 2-15), and wherein the bridge logic is operative only for the second category (column 7, lines 34-45). It would have been obvious to one of ordinary skill in the art at the time the invention was made that incorporating Sweazey's bridges in Voloshin's ring network would have created a local area network of unidirectional rings. The motivation would have been to increase the amount of information that can be transferred.

Art Unit: 2145

35. Regarding dependent claim 27, Sweazey taught wherein the first category is a supervisory message and the second category is a work message (column 7, lines 34-45, column 15, lines 25-42).

Allowable Subject Matter

36. Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

37. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach or suggest wherein the first address corresponds to the near side of the bridge and the second address corresponds to the far side of the bridge.

Conclusion

38. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

39. Voloshin, USPN 6,134,240: taught chip address allocation through a serial data ring on a stackable repeater;

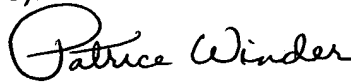
40. Owen et al., USPN 6,665,742 B2: taught initializing a computer system comprising a plurality of devices which communicate through a plurality of independent point-to-point links, wherein the devices are arranged in a ring structure; and

41. Godfrey, USPN 6,768,742 B1: taught a computer chip having modules interconnected through a plurality of local area networks.

42. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrice Winder whose telephone number is 571-272-3935. The examiner can normally be reached on Monday-Friday, 10:30 am-7:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Patrice Winder
Primary Examiner
Art Unit 2145

September 27, 2005